
US Phase-II Pixels Post-Scrubbing Meeting

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Main Updates since last meeting

- Two Module Assembly sites: ANL and LBNL (UCSC backup).
- Two Module Testing sites: UCSC and UNM.
- One Stave loading site: SLAC.
- Implemented 5% pre-production in FY19 (labeled as CORE).
- Updated costs with 5 Barrel Layers.
- Revisited some labor costs (cost decrease in most cases).
- Removed some double counting.
- Connectors added to Twisted Pairs.

News

- Scope from other FAs presented at last ITk week.
 - Lots of commitments for Module Assembly and Stave Loading: too many.
 - No commitment for second End-Cap.
- Critical Issue: Production schedule (discussed this morning at Pixel Design Group meeting): availability of FE chip for pre-production:
 - a. Pre-prod in 2018 if RD53A chip is full size (current plan is $\frac{1}{2}$ size).
 - b. Pre-prod in 2019 if RD53A chip is $\frac{1}{2}$ size, need another iteration.

Incompatibility: current schedule assumes pre-prod in 2018 (production in 2019) with a $\frac{1}{2}$ size RD53A chip.

b) Postpones production by 1 year.

a) Possible if change of scope of RD53A, needs \$500K.

Discussions need to happen within ATLAS Management.

SD: ITk Schedule

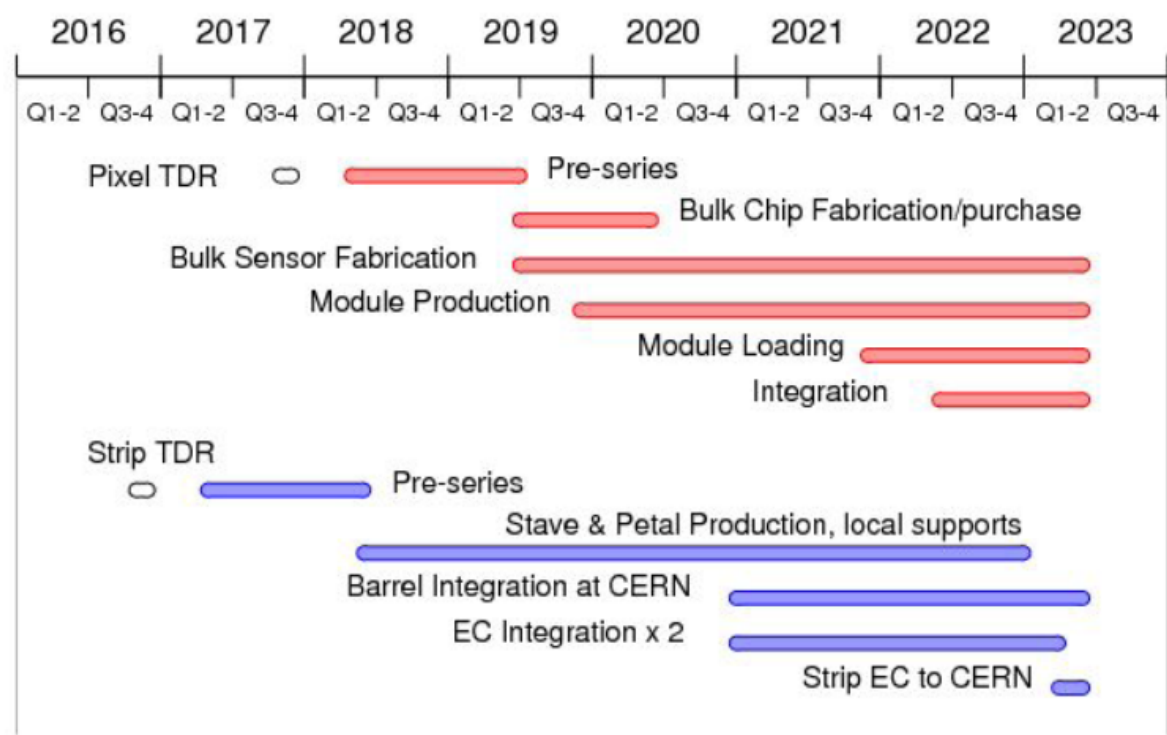


Figure 17. The schedules for the pixel and strip systems from the TDR phase into pre-production and then series production.

Pre-production / Production phases

L4 Deliverable	Items	Pre-Production	Production
Integration	Integration	FY18-FY21	FY22-FY24
Mechanics	IST	FY18-FY19	FY20-FY21
Services	Twinax	FY18-FY20	FY21-FY23
	Optical Links	FY18-FY20	FY21-FY23
Local Supports	I-Beams	FY18-FY19	FY20-FY22
	Twisted Pairs	FY18-FY19	FY20-FY22
	Stave Flex	FY18-FY19	FY20-FY22
	End Of Stave Card	FY18-FY19	FY20-FY22
	Stave Loading	FY18-FY20	FY21-FY23
Modules	Module Assembly	FY18-FY19	FY20-FY22
	FE Chip	FY18	FY19-FY21
Off-Detector Elec.	Serial Powering	FY18-FY20	FY21-FY22
Support	Support	FY18-FY20	FY21-FY23

Additional Slides

SD: ITk CORE Estimate – Profile.

Item	Cost	2017	2018	2019	2020	2021	2022	2023	2024	2025	Tot
Sensors	7008.62			10	30	30	20	10			100
FE-chip	2705.41		30	20	20	20	10				100
Bump-bonding	8595.72			15	25	25	25	10			100
Local support	4192.11				10	20	30	30	10		100
On-detector electronics	4298.66				10	20	30	30	10		100
LV/HV	1741.50					5	5	10	30	50	100
Cables/Fibers	3645.54					5	5	10	30	50	100
Total	32187.55	0.00	811.62	2531.30	5641.67	6760.10	6637.78	4646.37	2465.19	2693.52	32187.55

